

Lewis structures:

- bonding pair: e's shared (equal contribution)
- Lone pair: valence e's not shared.
- coordinate bonding pair: 2 e's are donated by the same atom and shared.

Incomplete octet < 8
Octet 8

expanded octet > 8

Resonance structures: 2 or more possible Lewis structures that differ by arrangement of e's. "Still have same geometry, same VSEPR Model"

Drawing Lewis structures:

- ① Count all valence e's "bank" of e
- ② Place central atom in the middle and other atoms around it, and link with "bonding pairs". "skeleton"
- ③ Make sure all surrounding atoms have 8 e's. (use e's from bank)
- ④ Check "e" balance in bank. Any e's left should be placed on the central.
- ⑤ Write the model obtained:
VSEPR ex: AX_3E
match the geometry.

Note: in case, the e's in the bank are all used up and the central atom needs more e's (ex. "8"), use double bond(s) or triple if needed

